

Notice of Allowability

Application No.

09/653,764

Examiner

Michael J. Simitoski

Applicant(s)

HERLE, SUDHINDRA P.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the appeal brief of 6/8/2006.
2. ☒ The allowed claim(s) is/are 1,3-9,11-17 and 19-24.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).


* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☒ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 20060828 .
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.


KAMBIZ ZAND
PRIMARY EXAMINER

EXAMINER'S AMENDMENT

1. Amendments to the claims begin on p. 3.
2. The Examiner's reasons for allowance begin on p. 10.
3. An interview summary is attached.
4. Note: The content of the drawings submitted with the appeal brief is acceptable.

Corrected drawing sheets are however required because the drawings submitted are not labeled "replacement sheet".

5. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee. **PLEASE ENTER THE FOLLOWING CLAIM AMENDMENTS.**

Authorization for this examiner's amendment was given in a telephone interview with John Mockler and Bhaveeni Parmar on 8/22/2006.

1. (Currently Amended) A mobile station that communicates ~~capable of communicating~~ with a plurality of base stations in a wireless network and ~~receives~~ing at least one of a software program, a software correction patch and provisioning data from a server associated with said wireless network, said mobile station comprising:

an RF transceiver that receives ~~capable of receiving~~ wireless messages from said plurality of base stations and ~~converts~~ing said received wireless messages to a plurality of Internet protocol (IP) packets;

an encryption controller that converts ~~capable of converting~~ said IP packets from an encrypted format to a decrypted format according to at least one of:

IP Sec tunneling protocol;

Secure Shell (SSH) tunneling protocol;

Secure Sockets Layer/Transport Layer Security (SSL/TLS); and

point-to-point tunneling protocol (PPTP); and

a data burst message protocol controller that converts ~~capable of converting~~ said decrypted IP packets to at least one data burst message,

wherein said mobile station accesses at least one of said software program, said software correction patch and said provisioning data via a public IP network and automatically applies at least one of said software program, said software correction patch and said provisioning data.

2. (Cancelled)

3. (Previously Presented) The mobile station as set forth in Claim 1 wherein each of said IP packets comprise IP layer information and an IP packet payload.

4. (Previously Presented) The mobile station as set forth in Claim 3 wherein said IP packet payload comprises transmission control protocol (TCP) layer information.

5. (Original) The mobile station as set forth in Claim 4 wherein said IP packet payload comprises an over-the-air service provisioning payload associated with said at least one data burst message.

6. (Previously Presented) The mobile station as set forth in Claim 1 wherein each of said IP packets comprises IP layer information, transmission control protocol (TCP) layer information and a IP packet payload.

7. (Previously Presented) The mobile station as set forth in Claim 6 wherein said IP packet payload comprises an over-the-air service provisioning payload associated with said at least one data burst message.

8. (Currently Amended) The mobile station as set forth in Claim 1 wherein said data burst message protocol controller ~~is capable of converting~~^{is configured to convert} said decrypted IP packets to said at least one data burst message according to at least one of: 1) an IS-683-A protocol; 2) a short messaging service (SMS) protocol; and 3) extensible mark-up language (XML) protocol.

9. (Currently Amended) A system for secure over-the-air administration of a wireless mobile station via a base station in a wireless network, said system that transmits ~~capable of transmitting~~ to said wireless mobile station at least one of a software program, a software correction patch and provisioning data from a server associated with said wireless network, said system comprising:

a data burst message protocol controller that receives ~~capable of receiving~~ and ~~converting~~ said at least one of a software program, a software correction patch and provisioning data into at least one data burst message;

an encryption controller that converts ~~capable of converting~~ said at least one data burst message into a plurality of encrypted IP packets according to at least one of:

IP Sec tunneling protocol;

Secure Shell (SSH) tunneling protocol;

Secure Sockets Layer/Transport Layer Security (SSL/TLS); and

point-to-point tunneling protocol (PPTP); and

an RF transceiver that converts ~~capable of converting~~ said encrypted IP packets into at least one wireless message and ~~transmitting~~ said at least one wireless message to said wireless mobile station,

wherein said mobile station accesses at least one of said software program, said software correction patch and said provisioning data via a public IP network and automatically applies at least one of said software program, said software correction patch and said provisioning data.

10. (Cancelled).
11. (Previously Presented) The system as set forth in Claim 9 wherein each of said IP packets comprises IP layer information and a IP packet payload.
12. (Previously Presented) The system as set forth in Claim 11 wherein said IP packet payload comprises transmission control protocol (TCP) layer information.
13. (Original) The system as set forth in Claim 12 wherein said IP packet payload comprises an over-the-air service provisioning payload associated with said at least one data burst message.
14. (Previously Presented) The system as set forth in Claim 9 wherein each of said IP packets comprises IP layer information, transmission control protocol (TCP) layer information and a IP packet payload.
15. (Currently Amended) The system as set forth in Claim 14 wherein ~~the~~ said IP packet payload comprises an over-the-air service provisioning payload associated with said at least one data burst message.
16. (Currently Amended) The system as set forth in Claim 9 wherein said data burst message protocol controller that converts ~~is capable of converting~~ said at least one of a software

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program, a software correction patch and provisioning data to said at least one data burst message according to at least one of: 1) an IS-683-A protocol; 2) a short messaging service (SMS) protocol; and 3) extensible mark-up language (XML) protocol.

17. (Currently Amended) For use in a wireless network, a method for securely transmitting to a wireless mobile station at least one of a software program, a software correction patch and provisioning data from a server associated with the wireless network, the method comprising the steps of:

receiving and converting the at least one of a software program, a software correction patch and provisioning data into at least one data burst message;

converting ~~the~~ said at least one data burst message into a plurality of encrypted IP packets;

converting ~~the~~ said encrypted IP packets into at least one wireless message according to at least one of:

IP Sec tunneling protocol;

Secure Shell (SSH) tunneling protocol;

Secure Sockets Layer/Transport Layer Security (SSL/TLS); and

point-to-point tunneling protocol (PPTP); and

transmitting ~~the~~ said at least one wireless message to ~~the~~ said wireless mobile station,

wherein said mobile station accesses at least one of said software program, said software correction patch and said provisioning data via a public IP network and automatically applies at least one of said software program, said software correction patch and said provisioning data.

18. (Cancelled).

19. (Currently Amended) The method as set forth in Claim 17 wherein each of ~~the~~ said IP packets comprises IP layer information and a IP packet payload.

20. (Currently Amended) The method as set forth in Claim 19 wherein ~~the~~ said IP packet payload comprises transmission control protocol (TCP) layer information.

21. (Currently Amended) The method as set forth in Claim 20 wherein ~~the~~ said IP packet payload comprises an over-the-air service provisioning payload associated with ~~the~~ said at least one data burst message.

22. (Currently Amended) The method as set forth in Claim 17 wherein each of ~~the~~ said IP packets comprises IP layer information, transmission control protocol (TCP) layer information and a IP packet payload.

23. (Currently Amended) The method as set forth in Claim 22 wherein ~~the~~ said IP packet payload comprises an over-the-air service provisioning payload associated with ~~the~~ said at least one data burst message.

24. (Currently Amended) The method as set forth in Claim 17 wherein ~~the~~ said steps of receiving and converting ~~the~~ said at least one of a software program, a software correction

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patch and provisioning data into at least one data burst message comprises the sub-sep of converting ~~the~~ said at least one of a software program, a software correction patch and provisioning data into at least one data burst message according to at least one of: 1) an IS-683-A protocol; 2) a short messaging service (SMS) protocol; and 3) extensible mark-up language (XML) protocol.

Allowable Subject Matter

6. The following is an examiner's statement of reasons for allowance:

7. Regarding claims 1 & 9, **Bao** discloses a mobile station capable of communicating with a base station in a wireless network (Fig. 2) and receiving traffic (Fig. 2), said mobile station comprising an RF transceiver capable of receiving wireless messages/RLP over CDMA from said base station (Fig. 2) and converting said received wireless messages/RLP over CDMA to a plurality of internet protocol (IP) packets/TCP/IP packets (Figs. 1 & 2). **Gellens** receiving provisioning data from a provisioning/OTAF server associated with said wireless network (§8.1, Fig. 8) and a data burst message protocol controller capable of converting IP packets to at least one data burst message/IS-683A message (IS-683A over TCP/IP) (p. 28, §8.1 - §8.1.1) to reduce duplicate software in the mobile station (§8.1.1, #1). Further, **Gellens** teaches that a mobile station should support end-to-end encryption (p. 9, §4.1) to gain security against attacks from within a carrier's network (p. 11, ¶1 & p. 29, #4). **Raith** teaches that it is well known in the art of cellular radio communications to incorporate multiple cells, each with their own base station, where a mobile station can communicate with a plurality of base stations to enable a mobile station to communicate from multiple cells (col. 9, lines 37-62 & col. 10, lines 1-28). **Saló** teaches that the IP Sec standard is known in the art and can provide encryption at the packet-processing layer (col. 13 lines 14-20).

However, the prior art relied upon fails to teach or suggest an encryption controller that converts said IP packets from an encrypted format to a decrypted format according to at least one of: IP Sec tunneling protocol, Secure Shell (SSH) tunneling protocol, Secure Sockets Layer/Transport Layer Security (SSL/TLS) and point-to-point tunneling protocol (PPTP) and a

data burst message protocol controller that converts decrypted IP packets to at least one data burst message, wherein said mobile station accesses at least one of a software program, a software correction patch and a provisioning data via a public IP network and automatically applies at least one of said software program, said software correction patch and said provisioning data in combination with the other limitations of the claims.

Regarding claim 17, **Bao** discloses a mobile station capable of communicating with a base station in a wireless network (Fig. 2) and receiving traffic (Fig. 2), said mobile station comprising an RF transceiver capable of receiving wireless messages/RLP over CDMA from said base station (Fig. 2) and converting said received wireless messages/RLP over CDMA to a plurality of internet protocol (IP) packets/TCP/IP packets (Figs. 1 & 2). **Gellens** receiving provisioning data from a provisioning/OTAF server associated with said wireless network (§8.1, Fig. 8) and a data burst message protocol controller capable of converting IP packets to at least one data burst message/IS-683A message (IS-683A over TCP/IP) (p. 28, §8.1 - §8.1.1) to reduce duplicate software in the mobile station (§8.1.1, #1). Further, **Gellens** teaches that a mobile station should support end-to-end encryption (p. 9, §4.1) to gain security against attacks from within a carrier's network (p. 11, ¶1 & p. 29, #4). **Raith** teaches that it is well known in the art of cellular radio communications to incorporate multiple cells, each with their own base station, where a mobile station can communicate with a plurality of base stations to enable a mobile station to communicate from multiple cells (col. 9, lines 37-62 & col. 10, lines 1-28). **Salo** teaches that the IP Sec standard is known in the art and can provide encryption at the packet-processing layer (col. 13 lines 14-20).

However, the prior art relied upon fails to teach or suggest converting at least one data burst message into a plurality of encrypted IP packets, converting said encrypted IP packets into at least one wireless message according to at least one of: IP Sec tunneling protocol, Secure Shell (SSH) tunneling protocol, Secure Sockets Layer/Transport Layer Security (SSL/TLS), point-to-point tunneling protocol (PPTP) wherein said mobile station accesses at least one of a software program, software correction patch and provisioning data via a public IP network and automatically applies at least one of said software program, said software correction patch and said provisioning data in combination with the other limitations of the claims.

8. Claims 3-8, 11-16 & 19-24 are allowed based upon their dependence upon allowed claims.

9. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

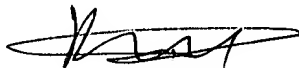
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J. Simitoski whose telephone number is (571) 272-3841. The examiner can normally be reached on Monday - Thursday, 6:45 a.m. - 4:15 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jacques Louis-Jacques can be reached on (571) 272-6962. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MJS



KAMBIZ ZAND
PRIMARY EXAMINER

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